

WHAT IS CLAIMED IS:

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A' 1 1. A method within a multi-mode mobile station for
2 communicating over a particular radio system wherein said
3 multi-mode mobile station is capable of selectively
4 communicating over a first radio system and a second radio
5 system and wherein said first radio system is preferred
6 over said second radio system, said method comprising the
7 steps of:

8 determining whether said preferred first radio system
9 is available to provide mobile service;

10 accessing said preferred first radio system;

11 receiving a plurality of messages over a control
12 channel associated with said preferred first radio system;

13 determining the error rate associated with said
14 plurality of messages;

15 comparing said determined error rate with a
16 predetermined threshold value; and

17 if said determined error rate exceeds said
18 predetermined threshold value, then

19 accessing said less preferred second radio system.

1 2. The method of claim 1 wherein said step of
2 determining whether said preferred first radio system is
3 available further comprises the step of determining
4 whether an acceptable number of said messages are received
5 within a predetermined time period.

1 3. The method of claim 1 wherein said step of
2 determining whether said preferred first radio system is
3 available further comprises the step of determining
4 whether a pilot signal from said preferred first radio
5 system is detectable.

1 4. The method of claim 1 wherein said messages are page
2 channel (PCH) messages.

1 5. The method of claim 1 wherein said step of
2 determining said error rate comprises the step of
3 determining a Frame Error Rate (FER) associated with said
4 plurality of messages.

1 6. The method of claim 5 wherein said step of
2 determining said FER is performed while said multi-mode
3 mobile station is in Idle state.

1 7. The method of claim 5 wherein said step of accessing
2 said less preferred second radio system is performed after
3 said determined FER exceeds said predetermined threshold
4 value over a plurality of consecutive time periods.

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1 8. A method of selecting a radio system within a multi-
2 mode mobile station wherein said multi-mode mobile station
3 is capable of selectively communicating over a first radio
4 system and a second radio system, said method comprising
5 the steps of:
6 accessing said first radio system by said multi-mode
7 mobile station;
8 periodically receiving a message signal over a
9 forward channel associated with said first radio system;
10 determining the number of message signals received
11 within a first predetermined time period;
12 determining the error rate associated with said
13 message signals received within a second predetermined
14 time period; and
15 accessing said second radio system in response to a
16 determination that the number of message signals received
17 within said first predetermined time period meets a first
18 threshold value, but that said error rate associated with
19 said message signals exceeds a second threshold value.

1 9. The method of claim 8 wherein said step of receiving
2 said message signal comprises the step of receiving a page
3 message over a page channel (PCH).

1 10. The method of claim 8 wherein said step of
2 determining said error rate comprises the step of
3 determining a Frame Error Rate (FER) associated with said
4 received message signals.

1 11. The method of claim 8 wherein said first radio system
2 is preferred over said second radio system within said
3 multi-mode mobile station.

1 12. The method of claim 11 wherein said first system
2 comprises a Code Division Multiple Access (CDMA) system.

1 13. The method of claim 11 wherein said second system
2 comprises a Advanced Mobile Phone System (AMPS).

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14. The method of claim 8 wherein said step of
determining said FER is performed while said multi-mode
mobile station is in Idle state.

15. The method of claim 8 wherein said step of accessing
said second radio system is performed after said
determined FER exceeds said predetermined threshold value
over a plurality of time periods.

16. The method of claim 8 wherein said second threshold
value is determined by calculating a signal-to-noise ratio
(E_c/I_o) associated with a pilot channel.

1 17. A multi-mode mobile station for selectively
2 communicating over a first radio system and a second radio
3 system wherein said first radio system is preferred over
4 said second radio system, comprising:

5 means for determining whether said first radio system
6 is available to provide service;

7 means for accessing said first radio system;

8 means for receiving messages over a forward channel
9 associated with said first radio system;

10 means for determining an error rate associated with
11 said received messages;

12 means for comparing said determined error rate
13 against a particular threshold value; and

14 means for accessing said second radio system in
15 response to a determination that said determined error
16 rate exceeds said particular threshold value.

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1 18. The multi-mode mobile station of claim 17 wherein
2 said messages received over said forward channel comprise
3 page messages over a page channel (PCH).

1 19. The multi-mode mobile station of claim 17 wherein
2 said means for determining said error rate associated with
3 said received messages comprises means for determining a
4 Frame Error Rate (FER) associated with said messages.

1 20. The multi-mode mobile station of claim 17 wherein
2 said threshold value is determined by calculating a
3 signal-to-noise ratio (E_c/I_o) associated with a pilot
4 channel.

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